



U.S. Department
of Transportation



Federal Transit Administration Bus Rapid Transit Demonstration Program

TRANSIT AUTHORITY OF RIVER CITY T²: THE SOUTH CENTRAL CORRIDOR

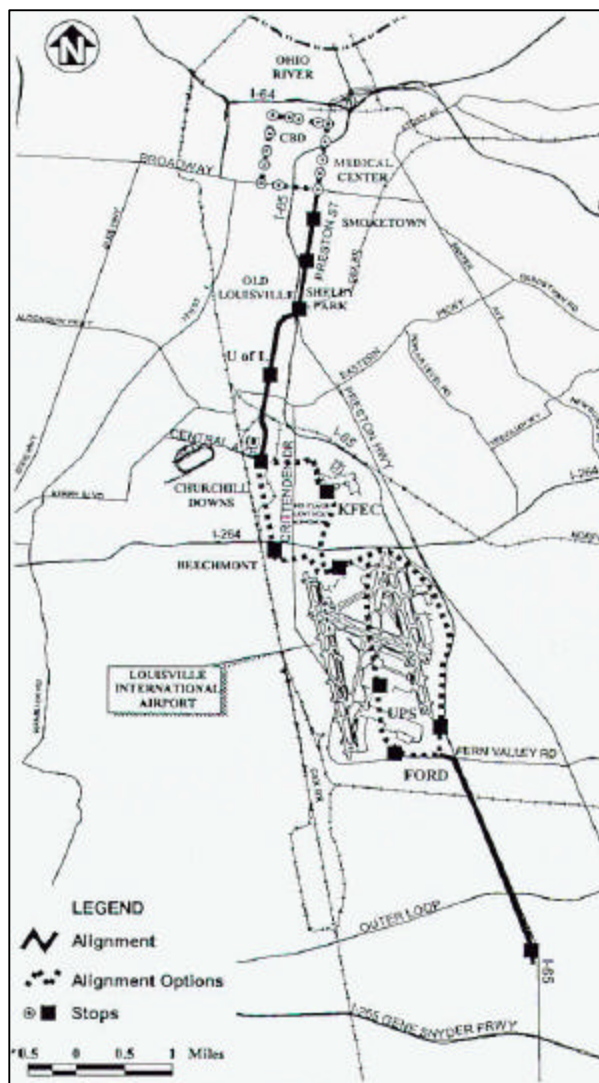
1. Project Description

• Type of Project

The Bus Rapid Transit (BRT) system is designed to provide high-capacity transit connections between activity centers and intermodal facilities in the corridor and to facilitate circulation within and between the major activity centers in the corridor. Those include Downtown Louisville (the Central Business District and Commonwealth Convention Center), Medical Center Complex, Smoketown-Shelby Park neighborhoods, University of Louisville, Papa John's Cardinal Stadium, the Kentucky Fair and Exposition Center, Louisville International Airport, UPS, Ford, and a park-and-ride transit center planned for south of the airport along I-65 north of the Gene Snyder Freeway.

• Method of Operation

The BRT would be semi-exclusive, operating in its own right-of-way for a portion of the alignment and in exclusive street lanes in the



downtown area. The BRT would operate in a fashion similar to light-rail transit, providing line-haul service along the length of the corridor. The flexibility of BRT operating as a collector-distributor at the alignment's termini will be explored.

- **Service Levels**

BRT basic hours of service would be from 5:30 AM to 12:30 AM on weekdays, and 7:30 AM to 12:30 AM on weekends. Weekday peak periods are from 7:30 to 9 AM and 4:30 to 6 PM. Late night-early morning service would be provided for UPS workers and others.

Regularly scheduled and feeder bus hours of service are from approximately 5:00 AM to 12:30 AM on weekdays and 7:00 AM to 12:30 AM on weekends. The weekday peak period is from 7:30 to 9 AM and 4:30 to 6 PM.

Frequency of service for BRT during the peak periods is 5 minutes between the University of Louisville Stadium station to downtown and 10 minutes south of the stadium station. Service would run every 20 minutes on the entire line during off-peak periods and weekends, and 30 minutes in the late evening.

- **Estimated Time Savings**

Because of exclusive operating right-of-way for buses and priority traffic signaling, bus rapid transit will be competitive with the single-occupant vehicle. BRT will reduce current transit travel time in the corridor by more than half, and get customers to destinations more quickly than the automobile, projected to encounter stalled traffic on I-65. Present bus service in the corridor has an average speed of about 10 miles per hour. The BRT is expected to have an average speed of about 20 miles per hour.

- **Number and Type of Vehicles Providing Service**

The service would be provided by low-floor articulated buses powered by either clean diesel or compressed natural gas (CNG) operating in a combination of exclusive, semi-exclusive, and shared right-of-way. It is estimated that 22 vehicles would be required to provide the service levels described above.

- **Fare Collection and Boarding**

The fare collection system would be automated, non-barrier fare collection and ticketing. Compliance would be enforced by security personnel. The fare transfer policy would be similar to that in effect for Transit Authority of River City (TARC) regular bus service. Boarding and exiting would occur at all doors.

- **Use of ITS Capabilities**

The City of Louisville has begun to initiate an intelligent transportation systems (ITS) program called TRIMARK. TARC is working with TRIMARK to take advantage of its capabilities for the existing transit service and also for the planned BRT project.

- **Traffic Engineering and Infrastructure**

In locations where the BRT operates within the street right-of-way the vehicles will be controlled by the traffic control system. Most streets in the downtown are one-way and the signals are timed to provided progression. Discussions with the Traffic Engineering Department have concluded that no preemption devices would be allowed. However, they could provide priority treatment for the BRT by favoring the route of the BRT with the signal-timing plan. Special signal phasing would be developed to facilitate the turning movements of the BRT.

2. Problems Addressed by the Project

Many activity and employment centers located within the corridor are growing, but have limited room to expand. Access to labor and an increasingly congested regional highway network are growing concerns. Parking is an almost universal problem that consumes valuable land and causes severe congestion and delay during major events. The current transit system is widely used, but by a limited cross-section of the community. Its travel times are not competitive with the automobile for most trips and it is projected to attract few new riders over the coming decades. Community leaders are raising serious concerns about the region's ability to continue to grow, be competitive, attract skilled labor, and maintain a high quality of life without clear strategies for human, infrastructure, and economic development. Major investments in transportation are needed to address the following specific problems:

- **Congestion, Accidents and Travel Time Are Increasing on I-65.**

I-65 is the only north-south highway through the South Central Corridor. It carries approximately 14 percent of the region's vehicle miles traveled. The highest traffic volumes on I-65 occur between Eastern Parkway and the Louisville Medical Center, with volumes in excess of 135,000 vehicles per day.

Because of its high traffic volumes, including a large numbers of trucks (10 to 15 percent depending on location and time of day), I-65 is an incident-prone facility. According to one study, there were over 1,000 accidents and as many as 7,000 incidents (loss of truckloads, breakdowns, etc.) on I-65 in 1993 in the corridor under consideration for rapid transit. The average delay to motorists attributed to these events during peaks periods was estimated to be 19 minutes.

Interstate 65 is already operating at capacity during the morning and evening peak congestion period, and future increases in demand will extend the rush-hour. The one-hour delay period

typically experienced today will be longer, and more downtown commuters will divert to alternate routes, such as I-64, I-264, Bardstown Road and Dixie Highway. Travel speeds will range from stop-and-go to 25 mph. Travel time on the 5-mile stretch of I-65 from the airport terminal to downtown will be increasingly unreliable, and is projected to increase to 23 minutes or more, roughly double the current time.

- **Transit Ridership Is Projected to Decline.**

Transit ridership in the Louisville region had been declining since 1990, a trend that has been reversed in recent years. Current ridership now stands at 16.3 million annual passengers. However, if current demographic trends continue, transit ridership will erode back to pre-1995 levels by the year 2020. This means greater dependency on the private auto and highways system to accommodate a larger population with far greater travel demand than exists today.

- **Access to Jobs and Activity Centers Is Deteriorating.**

In order for Louisville to grow and prosper, it must meet the labor and expansion needs of existing and new employers, such as UPS, the Louisville Medical Center, and the Central Business District. In addition, Louisville attracts over 1.5 million visitors annually who travel between the airport and convention centers and a variety of attractions, and who patronize hotels and restaurants throughout the South Central Corridor and the county. Over 18,000 students commute daily to the University of Louisville. These travel needs must continue to be met with improved transportation services if Louisville is to remain competitive and sustain its growing economy.

- **Air Quality, Quality of Life, and Economic Growth are Threatened**

The Greater Louisville region is currently a moderate non-attainment area for the pollutant ozone. With the upturn and expansion of the economy in the late 1980s and early 1990s, air quality problems have increased. If these problems persist or become more severe, measures to safeguard air quality may be needed that will restrict vehicular travel and/or curtail economic growth.

3. Implementation and Operations Schedule

Presented below are the key milestone dates for the BRT project. Meeting these dates depends on timely review and approval from FTA, Congressional support for funding, and timely action by the State Legislators on critical funding issues.

FTA gives approval to begin PE	October 1999
Complete PE and EIS	March 2001
FTA gives approval to begin Final Design	April 2001
Complete final design and R/W	September 2002
FTA signs FFGA	Before September 2002
Begin construction and vehicle purchase	July 2002
Begin operation	June 2004

4. Funding Plan

To fund a major transportation project such as the BRT, multiple sources must be used. These include Section 5309 New Starts funds, flexible federal funds (both state- and local-controlled), state general funds, local government funds, donated rights-of-way, private donations and participation in building transit stops and stations. The table below presents the initial preliminary plan for securing the various funds.

5. Issues of Concern re: planning, design, implementation and/or operations

The major issues of concern are timing and funding. A major transportation investment takes a long time to implement. Support and momentum may be lost because of delays in the approval process and procedures necessary to secure federal and state funds. Since competition for all funds is intense, funding is always an area of concern until the money is in hand.

6. Current Status

The MIS for Transportation Tomorrow (Phase 1) was completed late in 1998. Presently, a corridor refinement study is underway and is scheduled for completion later this year. There were three locations along the corridor that were not fully resolved during the MIS. One was the alignment in the downtown area. Another was in the area of the Kentucky Fair and Exposition Center (KFEC), a major national convention site. Options now being considered include elevating the alignment through KFEC or staying at grade and passing on the edge of KFEC. The third location is the airport area. UPS, Louisville's largest employer announced a major expansion at the airport. Alternative alignments are being explored to best serve UPS in a cost-effective manner.

There remains the question as to which technology, BRT or Light Rail Transit, is the more appropriate choice. This issue is being evaluated during the corridor refinement study with the answer to come in October 1999.

7. Contact

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